

REMARKS

Claim 1 to 21 were pending at the time of examination. Claims 1 to 21 stand rejected under 35 U.S.C. § 101. Claims 1 to 5, 7 to 13, 16 to 17 and 19 to 21 stand rejected as obvious. Claims 6, 14, 15, and 18 were stated to be allowable if rewritten or amended to overcome the § 101 rejection.

Applicant respectfully notes that since this rejection was issued, In re Lundgren was issued that totally rejected the use of the technological arts analysis, which was relied upon in the 101 rejection. In addition, the PTO has issued new guidelines for addressing § 101 issues. In view of these facts, Applicant respectfully submits that the § 101 rejection and the failure to consider explicit claim limitations as other than descriptive matter in the §103 analysis were not well founded.

Nevertheless, Applicant has amended Claims 1, 14, 15, 16, 18, and 19 to more clearly define the structures and method. The amendments are supported at least by Figs. 2A to 2C.

Claims 2 to 6, 9 and 17 are amended to correct informalities introduced by the amendment to Claim 1.

Claims 1 to 21 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter, specifically, as directed to an abstract idea.

Applicant respectfully traverses the §101 rejection of each of Claims 1 to 21. Applicant respectfully notes that the scatter/gather lists, as described in the background section of the above application and in the art relied upon in prior rejections, are not an abstract idea, but rather are useful structures that are utilized in transfer of information between two memories. To characterize such a

structure as an abstract idea fails to consider the claims in view of the level of skill in the art.

Moreover, the structures and method recited in Claims 1 to 21 are useful and accomplish a practical application. See, for example,

. . . a scatter/gather list 230 (Fig. 2A) that includes a plurality of sections 230A to 230C is used by a host adapter 250 without having to transfer and manage a count of either the number of elements in a section or the number of elements in the complete scatter/gather list. The size of scatter/gather list 230 is no longer limited by a size of a list length variable that in turn defines the maximum number of element in the scatter/gather list. Further, the host I/O bus bandwidth utilization is improved over the prior art methods. It is no longer necessary to transfer variables, over host I/O bus 270, defining the size of the scatter/gather list and the size of the sections making up the scatter/gather list.

Specification, Page 8, lines 7 to 20.

Thus, one practical application is "a plurality of sections 230A to 230C is used by a host adapter 250 without having to transfer and manage a count of either the number of elements in a section or the number of elements in the complete scatter/gather list." In addition, "the host I/O bus bandwidth utilization is improved over the prior art methods. It is no longer necessary to transfer variables, over host I/O bus 270, defining the size of the scatter/gather list and the size of the sections making up the scatter/gather list."

An abstract idea would not improve host I/O bus bandwidth utilization. The inventions as recited in Claim 1 to 21 are more than an idea or a concept, and are not a starting point for future investigation or research which are the characteristics of an abstract idea according to the PTO examination guidelines. Rather, Claims 1 to 21 recite

specific structures and processes that are utilized in transferring data from one memory to another memory. Accordingly, Applicant requests reconsideration and withdrawal of the §101 rejection of each of Claim 1 to 21.

Claims 1 to 5, 7 to 13, 16, 17, and 19 to 21 stand rejected as obvious over Applicant's admitted prior art.

Applicant respectfully traverses the obviousness rejection of Claim 1. Applicant respectfully notes that the rejection treats the "plurality scatter/gather list sections" as descriptive material. To moot this point, Applicant has added language to Claim 1 that was inherent in Claim 1 when Claim 1 was interpreted in view of the specification, in particular,

wherein each of said sections is stored in a different set of contiguous memory locations in said memory and said set of contiguous memory locations can be of any size

There has been no citation to any teaching or suggestion of a scatter/gather list having sections stored as quoted above. In addition, this is not descriptive matter, but rather defines the memory structure.

In addition, the state of end-of-list flag has been defined and the data element structure has been further defined, and clearly are physical elements and not mere descriptive matter. Again, each of these characteristics was inherent when the claim was read in view of the specification. Nevertheless, the characteristics have been explicitly recited in Claim 1 to move the prosecution forward. Since these elements were treated as descriptive matter and not physical limitations, the rejection failed to consider these limitations in the analysis. Accordingly, when the these limitations are considered in the as a whole claim analysis, the prior art figures cited fail to disclosure the structure recited in Claim 1.

Finally, Applicant respectfully notes:

. . . the rejection combines Figs. 1A to 1C to arrive at Applicant's invention as recited in Claim 1. However, each of Figs. 1A to 1C is an example of a different prior art approach to implementing scatter/gather lists. In particular, the specification described:

Fig. 1A is an illustration of a prior art host adapter system with a scatter/gather list, in contiguous memory locations, which used a list length variable.

Fig. 1B is an illustration of a prior art host adapter system with a scatter/gather list, in contiguous memory locations, which used an end list flag bit.

Fig. 1C is an illustration of a prior art host adapter system with a scatter/gather list in discontinuous memory locations that used a list length variable and a section length variable.

Specification, pg. 7, lines 5 to 16.

Thus, the description unambiguously establishes that Figs. 1A to 1C are three different examples. The description provides no basis for selecting elements from the various different examples to generate a new scatter/gather list

In addition, it is well known that elements in the prior art scatter/gather lists included an address and length of a data segment. See Specification, pg. 2, lines 8 to 12. The quoted description above makes it clear what information was used in addition to the elements that included an address and a data segment length. Thus, in Fig. 1C, a1, a2, etc. are addresses, while y1, y2, etc. are corresponding data segment lengths.

The Examiner has failed to cite any teaching or description in the specification that characterizes a1 as an end-of-section flag. In fact, the admitted prior art does not include the phrase "end-of-section flag." Each element in the prior art examples that is different from an address and a data segment length has been explicitly called out and defined. The description provides no basis for assigning definitions different from those that would be used by those of skill in the art. In addition, a scatter/gather list section that included only end-of-section and end-of list flags would

not function as a scatter/gather list, and so this is but further evidence that the interpretation used in the rejection is not supported by the cited prior art.

Response to Final Office Action, dated August 26, 2005
Action, pgs. 10-11.

Applicant respectfully submits that when Claim 1 is considered as a whole, Figs. 1A to 1C fail to suggest or disclose the multiple section scatter/gather list with the elements as recited in Claim 1. Applicant respectfully requests reconsideration and withdrawal of the obviousness rejection of Claim 1.

Claim 2 to 5, and 7 to 13 depend from Claim 1 and so distinguish over the combination of references for at least the same reasons as Claim 1. Applicant respectfully requests reconsideration and withdrawal of the obviousness rejection of each of Claims 2 to 13.

Claims 16, 17 and 19 to 21 include limitations similar to those discussed above with respect to Claim 1 and so that discussion is incorporated herein by reference. Accordingly, Applicant requests reconsideration and withdrawal of the obviousness rejection of each of Claims 16 and 17, and 19 to 21.

In view of the amendments to Claims 14, 15 and 18, Applicant respectfully submits that these claims are in condition for allowance.

Applicant has not combined Claims 6, 4, and 1 at this time in view of the above remarks.

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Appl. No. 09/925,135
Amdt. dated December 20, 2005
Reply to Office Action of August 23, 2005

Claims 1 to 21 remain in the application. Claims 1 to 6, 9, and 14 to 19 have been amended. For the foregoing reasons, Applicant(s) respectfully request allowance of all pending claims. If the Examiner has any questions relating to the above, the Examiner is respectfully requested to telephone the undersigned Attorney for Applicant(s).

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on December 20, 2005.



Attorney for Applicant(s)

December 20, 2005
Date of Signature

Respectfully submitted,



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